

REMARKS

In response to the Office Action mailed June 2, 2005, the Applicants respectfully request reconsideration. Claims 1-14, 18-20, 34-47 and 51-53 were previously pending in this application. Claims 1, 2, 5, 6, 8, 12-14, 18, 34, 35, 41, 45-47 and 51 have been amended. No claims have been cancelled. As a result claims 1-14, 18-20, 34-47 and 51-53 are pending for examination with claims 1, 6, 8, 13, 18, 34, 39, 41, 46 and 51 being independent claims. No new matter has been added.

Claim Objections

The Examiner objected to claims 8 and 41 for informalities. Applicants have amended claims 8 and 41 generally as suggested by the Examiner and request reconsideration of the amended claims and claims dependent therefrom. In addition, Applicants have amended claims 5, 6, 12, 14, 18, 45-47 and 51 to correct informalities therein.

Rejections Under 35 U.S.C. §102(b)

The Examiner rejected claims 1-4, 13, 34-37 and 46 under 35 U.S.C. §102(b) as being anticipated by Miffitt et al. (U.S. Patent 4,957,291; referred to hereafter as “Miffitt”). Applicants traverse the rejection and, in light of the amendments to the independent claims, respectfully suggest that the rejections are moot.

Rejections Under 35 U.S.C. §103(a)

The Examiner rejected claims 5 and 38 under 35 U.S.C. §103(a) as being unpatentable over Miffitt in view of Hyatt (U.S. Patent 4,342,906; referred to hereafter as “Hyatt”); rejected claims 6-8, 14, 18-20, 39-41, 47 and 51-53 under 35 U.S.C. §103(a) as being unpatentable over Miffitt in view of Matthias et al. (U.S. Patent 5,165,778; referred to hereafter as “Matthias”); and rejected claims 9-12 and 42-45 under 35 U.S.C. §103(a) as being unpatentable over Miffitt in view of Matthias and further in view of Hyatt. Applicants disagree and traverse the rejections.

Applicants' independent claim 1, as amended, recites a method of providing information, comprising receiving an information signal, sampling the information signal at predetermined intervals to obtain data points, providing an LED illumination device wherein the illumination device further comprises an input connection, providing a processor for converting the data points into color parameters of an illumination control signal and communicating the illumination control signal to the input connection to control a light output of the illumination device to correspond to the color parameters of the illumination control signal so as to convey the information received in the information signal.

Applicants respectfully suggest that the Examiner's rejection of claims 1 and 34 are moot in light of the amendments to claims 1 and 34. Miffitt discloses an electronic game in the shape of a tetrahedron. Each vertex supports a light that illuminates in one or more colors as the game is rotated. For example, the color of the vertex brought to the top position changes in the color change pattern established by a color state vector defined by digital circuitry within the game. Miffitt does not teach or suggest sampling an information signal to obtain data points, as recited by Applicants. The signal in Miffitt is a static signal, i.e., the signal does not change unless the user rotates the game. The signal in Miffitt is not sampled since the signal provides only a simple indication as to which vertex is in the top position.

Further, Miffitt does not teach or suggest converting data points into color parameters of an illumination control signal such that a light output of the illumination device corresponds to the color parameters, as recited by Applicants. As described in the above remarks, in a first instance Miffitt does not obtain data points. Also, the signal in Miffitt is not converted to color parameters. As noted by the Examiner, the signal indicates the position of the tetrahedron and serves only to indicate which vertex is to be illuminated. The signal contains no data points that are converted to color parameters.

Applicants respectfully submit that Miffitt does not disclose the features recited in Applicants' claim 1. Thus, claim 1 is patentable over the cited art and is allowable.

Applicants' independent claim 34, as amended, recites an information system comprising components corresponding to the limitations recited in Applicants' amended claim 1. Thus, claim 34 is patentable over the cited art and is allowable. Claims 2-5 and 35-38 depend directly or indirectly on claims 1 and 34, respectively and are thus allowable at least by dependency.

Applicants' independent claim 6 recites a method of providing information, comprising providing an LED illumination device wherein the illumination device comprises at least two LEDs that produce at least two different spectra, providing a processor, providing at least two controllers wherein the controllers independently control power delivered to the at least two LEDs, the at least two controllers further comprising a signal input connection wherein the signal input connection is associated with the processor; the at least two controllers being responsive to signals communicated to the signal input connection, providing a light transmissive material wherein the LEDs are arranged to illuminate the light transmissive material and providing an information signal to the signal input connection, wherein the processor converts the information signal into an illumination control signal and the illumination device changes color corresponding to the information signal. Applicants amended claim 6 to correct informalities.

The Examiner contends that Miffitt discloses at least two controllers integrated with the processor (34) having outputs PC_0 and PC_1 , wherein the controllers independently control power delivered to the at least two LEDs. Applicants disagree. Miffitt discloses a game as described in the above remarks. As shown in Figs. 2 and 5, Miffitt discloses a single controller or processor (34). The single processor or controller (34) includes multiple outputs PC_0 - PE_3 . However, the multiple outputs do not constitute multiple controllers. The Examiner cites Matthias as having a light transmissive material and correctly does not contend that Matthias discloses at least two controllers.

Since neither Miffitt nor Matthias, alone or in any combination, teach or suggest all of the features recited in each of the Applicants' claim 6, Applicants respectfully

submit that claim 6 as amended is patentable over the combination of Miffitt and Matthias. Applicants' independent claims 8, 18, 39, 41 and 51 recite, respectively, an information system, a computer peripheral, an information system, a method of providing an information system and a method of providing a computer peripheral, with each system, peripheral and method recited in the claims having components or features corresponding to the limitations recited in Applicants' claim 6. Thus, claims 8, 18, 39, 41 and 51 are patentable over the cited art and are allowable. Claims 7, 9-12, 19, 20, 40, 52 and 53 depend directly or indirectly on claims 6, 8, 18, 39, 41 and 51 22 and 59, respectively and are thus allowable at least by dependency.

Applicants independent claim 13, as amended, recites a method of providing information comprising receiving an information signal wherein the information signal is formatted as a lighting control signal having hue, saturation and intensity parameters, providing an LED illumination device wherein the illumination device further comprises an input connection and communicating the information signal to the input connection wherein the illumination device changes color corresponding to the information signal and a hue, saturation and intensity of the color represent the received information.

The Examiner contends that Miffitt discloses the hue of the color (red, green, or yellow) of the LEDs (16) representing the received information. While Miffitt discloses LEDs having different colors, Miffitt does not disclose a lighting control signal having hue, saturation and intensity parameters. Nor does Miffitt disclose an illumination device that changes color corresponding to the information signal and wherein a hue, saturation and intensity of the color represent the received information.

As is known to those of skill in the art, a color palette includes more than simply hue or color, i.e., the color's light frequency. In color models, e.g., the HSB color model, other parameters can be used in describing a color. Applicants' method recited in claim 13 recites color parameters for hue, saturation (i.e., the purity of the color) and intensity (or brightness, i.e., the amount of black in the color). Miffitt is silent with regard to any color parameters besides hue.

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Applicants respectfully submit that Miffitt does not disclose the features recited in Applicants' claim 13. Thus, claim 13 is patentable over the cited art and is allowable. Applicants' independent claim 46, as amended, recites an information system comprising components corresponding to the limitations recited in Applicants' amended claim 13. Thus, claim 46 is patentable over the cited art and is allowable. Claims 14 and 47 depend on claims 1 and 46, respectively and are thus allowable at least by dependency.

CONCLUSION

In view of the foregoing amendments and remarks, reconsideration is respectfully requested. This application should now be in condition for allowance; a notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

Respectfully submitted,



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